WHAT IS CLAIMED IS:

1   1. A method comprising:

2   a) accepting a plurality of ads, each having at least one associated targeting

3   concept;

4   b) accepting at least one concept associated with a request; and

5   c) determining, for each of the plurality of ads, a similarity with the request using,

6   at least, the at least one targeting concept associated with the ad, and the at

7   least one concept associated with the request.

1   2. The method of claim 1 wherein the plurality of ads are candidate ads that have been

2   determined to be relevant to the request using, at least, keyword targeting information.

1   3. The method of claim 2 further comprising:

2   d) determining, for each of the plurality of ads, a score using at least the

3   determined similarity.

1   4. The method of claim 3 wherein the act of determining a score further uses at least

2   one of (1) ad performance information, (2) advertiser quality information, (3) ad price

3   information, and (4) an information retrieval score.

1   5. The method of claim 4 further comprising:

2   e) providing a relative preference attribute to each of the ads using at least the

3   score.

1   6. The method of claim 5 wherein the relative preference attribute is a position at which

2   the ad is to be rendered.

1   7. The method of claim 3 further comprising:

2   e) providing a relative preference attribute to each of the ads using at least the

3   score.

1   8. The method of claim 7 wherein the relative preference attribute is a position at which

2   the ad is to be rendered.

1   9. A method comprising:

2   a) accepting a plurality of ads, each having at least one associated targeting

3   concept;

4   b) determining at least one concept associated with a request; and

5   c) determining, for each of the plurality of ads, a similarity with the request using,

6   at least, the at least one targeting concept associated with the ad and the at least

7   one determined concept associated with the request.

1   10. The method of claim 9 wherein the plurality of ads are candidate ads that have

2   been determined to be relevant to the request using, at least, keyword targeting

3   information.

1   11. The method of claim 10 further comprising:

2   d) determining, for each of the plurality of ads, a score using at least the

3   determined similarity.

1   12. The method of claim 11 wherein the act of determining a score further uses at least

2   one of (1) ad performance information, (2) advertiser quality information, (3) ad price

3   information, and (4) an information retrieval score.

1   13. The method of claim 12 further comprising:

2   e) providing a relative preference attribute to each of the ads using at least the

3   score.

1   14. The method of claim 11 further comprising:

2   e) providing a relative preference attribute to each of the ads using at least the

3   score.

1   15. The method of claim 9 wherein at least some of the plurality of ads are to be served

2   in association with search results, and

3   wherein the act of determining at least one concept associated with a request

4   includes using at least information associated with a search query.

1   16. The method of claim 9 wherein at least some of the plurality of ads are to be served

2   in association with a document including content, and

3   wherein the act of determining at least one concept associated with a request

4   includes using at least the content of the document.

1   17. A method comprising:

2   a) accepting an ad having an at least one associated targeting concept;

3   b) accepting at least one concept associated with a request; and

4   c) determining a similarity of the ad with the request using, at least, the at least

5   one targeting concept associated with the ad, and the at least one concept

6   associated with the request.

1   18. The method of claim 17 wherein each of the at least one the targeting concept is

2   represented by a concept vector including elements with concept values, and

3   wherein each of the at least one concept associated with the request is

4   represented by another concept vector including elements with concept values.

1   19. The method of claim 18 wherein the act of determining a similarity includes

2   determining a dot product of the concept vector and the other concept vector.

1   20. The method of claim 18 wherein the concept values of the elements of the concept

2   vector may range from 1 to -1, and

3   wherein the concept values of the elements of the other concept vector may

4   range from 1 to -1.

1　21. The method of claim 18 wherein at least some of the elements of the concept

2　vector are dependent,

3　　　　wherein at least some of the elements of the other concept vector are dependent,

4　and

5　　　　wherein the act of determining a similarity includes determining a minimum

6　distance from one concept vector to the other concept vector across one or more

7　connections.

1　22. The method of claim 18 further comprising:

2　　　　- adjusting, before determining a similarity of the ad with the request, at least

3　　　　some of the concept values using tracked performance information of

4　　　　corresponding concepts when used in ad serving.

1　23. A method comprising:

2　　　　a) accepting ad information;

3　　　　b) determining at least one of (1) a candidate concept and (2) a candidate

4　　　　concept indicator using the accepted ad information;

5　　　　c) presenting the determined at least one candidate concept and candidate

6　　　　concept indicator to an advertiser; and

7　　　　d) determining a representation of the concept targeting information for the ad

8　　　　using, at least, advertiser feedback to the presented at least one candidate

9　　　　concept and candidate concept indicator.

1　24. The method of claim 23 further comprising:

2　　　　e) determining at least one of (1) a further candidate concept and (2) a further

3　　　　candidate concept indicator using advertiser feedback; and

4　　　　f) presenting the determined at least one further candidate concept and further

5　　　　candidate concept indicator to the advertiser.

1　25. The method of claim 23 wherein the candidate concept indicator is a previously

2　processed search query to which the ad would have been relevant.

1   26. A method comprising:

2   a) accepting targeting criteria information associated with an ad;

3   b) determining at least one targeting concept using at least the accepted

4   targeting criteria information;

5   c) determining a representation of the determined at least one targeting concept;

6   and

7   d) associating the determined representation with the ad.

1   27. The method of claim 26 wherein the act of determining at least one targeting

2   concept further uses at least information from other ads using the same or similar

3   targeting criteria information.

1   28. A method for determining concepts of a request, the method comprising:

2   a) accepting request information;

3   b) determining at least one concept using the request information;

4   c) generating a representation of the determined at least one concept, wherein a

5   score of least one of the at least one concepts in the generated representation is

6   adjusted using performance information of advertisements that have been served

7   pursuant to the concept.

1   29. The method of claim 28 wherein the at least one concept includes a "no concept"

2   concept.

1   30. The method of claim 28 wherein the performance information is advertisement

2   selection information.

1   31. The method of claim 28 wherein the performance information is conversion

2   information.

1   32. A method for adjusting a score of a concept relative to a request, the method

2   comprising:

3   a) tracking performance information of advertisements served pursuant to the

4   concept; and

5   b) adjusting the score of the concept relative to the request using the tracked

6   performance information.

1 33. The method of claim 32 wherein the act of adjusting the score includes increasing

2 the score if the tracked performance information is above a threshold performance level.

1 34. The method of claim 32 wherein the act of adjusting the score includes decreasing

2 the score if the tracked performance information is below a threshold performance level.

1 35. The method of claim 32 wherein the act of adjusting the score uses the tracked

2 performance of the concept relative to tracked performance of at least one other

3 concept.

1 36. The method of claim 32 wherein the performance information is advertisement

2 selection information.

1 37. The method of claim 32 wherein the performance information is conversion

2 information.

1 38. Apparatus comprising:

2   a) an input for accepting

3   i) a plurality of ads, each having at least one associated targeting

4   concept, and

5   ii) at least one concept associated with a request; and

6   b) means for determining, for each of the plurality of ads, a similarity with the

7   request using, at least, the at least one targeting concept associated with the ad,

8   and the at least one concept associated with the request.

1   39. The apparatus of claim 38 wherein the plurality of ads are candidate ads that have

2   been determined to be relevant to the request using, at least, keyword targeting

3   information.

1   40. The apparatus of claim 39 further comprising:

2   c) means for determining, for each of the plurality of ads, a score using at least

3   the determined similarity.

1   41. The apparatus of claim 40 wherein the means for determining a score further use at

2   least one of (1) ad performance information, (2) advertiser quality information, (3) ad

3   price information, and (4) an information retrieval score.

1   42. The apparatus of claim 41 further comprising:

2   d) means for providing a relative preference attribute to each of the ads using at

3   least the score.

1   43. The apparatus of claim 42 wherein the relative preference attribute is a position at

2   which the ad is to be rendered.

1   44. The apparatus of claim 40 further comprising:

2   d) means for providing a relative preference attribute to each of the ads using at

3   least the score.

1   45. The apparatus of claim 44 wherein the relative preference attribute is a position at

2   which the ad is to be rendered.

1   46. Apparatus comprising:

2   a) means for accepting a plurality of ads, each having at least one associated

3   targeting concept;

4   b) means for determining at least one concept associated with a request; and

5   c) means for determining, for each of the plurality of ads, a similarity with the

6   request using, at least, the at least one targeting concept associated with the ad

7   and the at least one determined concept associated with the request.

1   47. The apparatus of claim 46 wherein the plurality of ads are candidate ads that have

2   been determined to be relevant to the request using, at least, keyword targeting

3   information.

1   48. The apparatus of claim 47 further comprising:

2   d) means for determining, for each of the plurality of ads, a score using at least

3   the determined similarity.

1   49. The apparatus of claim 48 wherein the means for determining a score further use at

2   least one of (1) ad performance information, (2) advertiser quality information, (3) ad

3   price information, and (4) an information retrieval score.

1   50. The apparatus of claim 49 further comprising:

2   e) means for providing a relative preference attribute to each of the ads using at

3   least the score.

1   51. The apparatus of claim 48 further comprising:

2   e) means for providing a relative preference attribute to each of the ads using at

3   least the score.

1   52. The apparatus of claim 46 wherein at least some of the plurality of ads are to be

2   served in association with search results, and

3   wherein the means for determining at least one concept associated with a

4   request use at least information associated with a search query.

1   53. The apparatus of claim 46 wherein at least some of the plurality of ads are to be

2   served in association with a document including content, and

3   wherein the means for determining at least one concept associated with a

4   request use at least the content of the document.

1   54. Apparatus comprising:

2   a) an input for accepting

3   i) an ad having an at least one associated targeting concept, and

4   ii) at least one concept associated with a request; and

5   b) means for determining a similarity of the ad with the request using, at least,

6   the at least one targeting concept associated with the ad, and the at least one

7   concept associated with the request.

1   55. The apparatus of claim 54 wherein each of the at least one the targeting concept is

2   represented by a concept vector including elements with concept values, and

3   wherein each of the at least one concept associated with the request is

4   represented by another concept vector including elements with concept values.

1   56. The apparatus of claim 55 wherein the means for determining a similarity determine

2   a dot product of the concept vector and the other concept vector.

1   57. The apparatus of claim 55 wherein the concept values of the elements of the

2   concept vector may range from 1 to -1, and

3   wherein the concept values of the elements of the other concept vector may

4   range from 1 to -1.

1   58. The apparatus of claim 55 wherein at least some of the elements of the concept

2   vector are dependent,

3   wherein at least some of the elements of the other concept vector are dependent,

4   and

5   wherein the means for determining a similarity determine a minimum distance

6   from one concept vector to the other concept vector across one or more connections.

1   59. The apparatus of claim 55 further comprising:

2   - means for adjusting, before determining a similarity of the ad with the request,

3   at least some of the concept values using tracked performance information of

4   corresponding concepts when used in ad serving.

1   60. Apparatus comprising:

2   a) an input for accepting ad information;

3   b) means for determining at least one of (1) a candidate concept and (2) a

4   candidate concept indicator using the accepted ad information;

5   c) means for presenting the determined at least one candidate concept and

6   candidate concept indicator to an advertiser; and

7   d) means for determining a representation of the concept targeting information

8   for the ad using, at least, advertiser feedback to the presented at least one

9   candidate concept and candidate concept indicator.

1   61. The apparatus of claim 60 further comprising:

2   e) means for determining at least one of (1) a further candidate concept and (2)

3   a further candidate concept indicator using advertiser feedback; and

4   f) means for presenting the determined at least one further candidate concept

5   and further candidate concept indicator to the advertiser.

1   62. The apparatus of claim 60 wherein the candidate concept indicator is a previously

2   processed search query to which the ad would have been relevant.

1   63. Apparatus comprising:

2   a) an input for accepting targeting criteria information associated with an ad;

3   b) means for determining at least one targeting concept using at least the

4   accepted targeting criteria information;

5   c) means for determining a representation of the determined at least one

6   targeting concept; and

7   d) means for associating the determined representation with the ad.

1   64. The apparatus of claim 63 wherein the means for determining at least one targeting

2   concept further use at least information from other ads using the same or similar

3   targeting criteria information.

1   65. Apparatus for determining concepts of a request, the apparatus comprising:

2   a)   an input for accepting request information;

3   b)   means for determining at least one concept using the request information;

4   c)   means for generating a representation of the determined at least one concept,

5   wherein a score of least one of the at least one concepts in the generated

6   representation is adjusted using performance information of advertisements that

7   have been served pursuant to the concept.

1   66. The apparatus of claim 65 wherein the at least one concept includes a "no concept"

2   concept.

1   67. The apparatus of claim 65 wherein the performance information is advertisement

2   selection information.

1   68. The apparatus of claim 65 wherein the performance information is conversion

2   information.

1   69. Apparatus for adjusting a score of a concept relative to a request, the apparatus

2   comprising:

3   a)   means for tracking performance information of advertisements served

4   pursuant to the; and

5   b)   means for adjusting the score of the concept relative to the request using the

6   tracked performance information.

1   70. The apparatus of claim 69 wherein the means for adjusting the score include

2   means for increasing the score if the tracked performance information is above a

3   threshold performance level.

1 71. The apparatus of claim 69 wherein the means for adjusting the score include
2 means for decreasing the score if the tracked performance information is below a
3 threshold performance level.

1 72. The apparatus of claim 69 wherein the means for adjusting the score uses the
2 tracked performance of the concept relative to tracked performance of at least one other
3 concept.

1 73. The apparatus of claim 69 wherein the performance information is advertisement
2 selection information.

1 74. The method of claim 69 wherein the performance information is conversion
2 information.